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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/786,056	11/13/2001	Mark Henry Pausch	01142.0101	6857

7590

09/09/2002

Finnegan Henderson Farabow
Garrett & Dunner
1300 I Street NW
Washington, DC 20005-3315

EXAMINER

WEGERT, SANDRA L

ART UNIT

PAPER NUMBER

1647

DATE MAILED: 09/09/2002

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/786,056

Applicant(s)

PAUSCH ET AL.

Examiner

Sandra Wegert

Art Unit

1647

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 May 2002.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3,4,6-13,15-27 and 29-51 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) _____ is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☒ Claim(s) 1,3,4,6-13,15-27 and 29-51 are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

The examiner in charge of your application in the PTO has changed. To aid in correlating any papers for this application, all further correspondence regarding this application should be directed to examiner Sandra Wegert in Group Art Unit 1647.

DETAILED ACTION

The Restriction requirement of 3/25/02 (Paper 7) was reviewed by the examiner, as were the comments submitted by the Applicants (5/10/02, Paper 9). Upon further consideration, the Restriction requirement is hereby VACATED. A new Restriction requirement follows:

Election/Restriction

Restriction is required under 35 U.S.C. 121 and 372.

This application contains the following inventions or groups of inventions which are not so linked as to form a single general inventive concept under PCT Rule 13.1.

In accordance with 37 CFR 1.499, applicant is required, in response to this action, to elect a single invention to which the claims must be restricted.

- I. Claims 1-12 and 27, drawn to a yeast host cell comprising a constitutively-active heterologous G-protein coupled receptor.
- II. Claims 13 and 26, drawn to a method of screening compounds that bind to a G-protein coupled receptor to cause cell growth.
- III. Claim 15-17, drawn to a yeast host cell comprising a mutated gene and a G-protein-coupled receptor with improved functional interaction with G-proteins.

- IV. Claim 15-19, drawn to a yeast host cell comprising a mutated gene and a G-protein-coupled receptor which does not interact with desensitization machinery.
- V. Claim 15, 16, 17 and 20, drawn to a yeast host cell comprising a mutated gene and a G-protein-coupled receptor for which there is a reduction in receptor degradation or sequestration.
- VI. Claim 15-17, drawn to a yeast host cell comprising a mutated gene and a G-protein-coupled receptor lacking proper plasma membrane localization.
- VII. Claim 15 and 21-25 , drawn to a yeast host cell comprising a mutated gene and a G-protein-coupled receptor with an improved functional response due to the ratio of sterols in the cell membrane.
- VIII. Claims 29-44, drawn to a cell comprising a modified G-protein alpha subunit gene.
- IX. Claim 45, drawn to a modified G-protein alpha subunit protein.
- X. Claims 46-51, drawn to a method of screening compounds that bind to a G-protein coupled receptor in a cell comprising a modified G-protein alpha subunit gene.

The inventions are distinct, each from the other because of the following reasons:

The first claimed invention lacks a special technical feature because it fails to distinguish the claimed invention from the prior art (e.g., Clark, et al, 1994). The prior art discloses a yeast

host cell comprising a constitutively-active G-protein coupled receptor that meets the limitations of the G-protein coupled recited in the first claimed invention. Therefore, none of the other claimed inventions can share a special technical feature with the first claimed invention.

Inventions I, III, IV, V, VI, VII, VIII and IX are independent and distinct, each from each other, because they comprise and use products which possess characteristic differences in structure and function and each has an independent utility that is distinct for each invention which cannot be exchanged. The cell of Invention I can be used to study constitutive activation of a G-protein coupled receptor. The cell of Invention IV can be used to study interactions of G-protein coupled receptor with desensitization machinery. The cell of Invention V can be used to study G-protein coupled receptor degradation or inactivating sequestration. The cell of Invention VI can be used to study G-protein coupled receptors lacking proper plasma membrane localization. The cell of Invention VII can be used to study G-protein coupled receptor activity as a response to the ratio of sterols in the plasma membrane. The cell of Invention VIII can be used to study modifications of the G-protein alpha subunit. The protein of Invention IX can be made by another and materially different process such as by synthetic peptide synthesis or purification from the natural source. Furthermore, the peptide of Invention IX is related to "X as process of making and product made. The inventions are distinct if either or both of the following can be shown: (1) that the process as claimed can be used to make other and materially different product or (2) that the product as claimed can be made by another and materially different process (M.P.E.P. § 806.05 (f)). In the instant case, the peptide may be isolated from its natural source or made by chemical synthesis.

The method of Invention II is distinct from the cells and proteins of Inventions I and III-IX because the cells and proteins of Inventions I and III-IX are not made by the method of Invention II. Furthermore, the products of Invention II are patentably distinct from the products of Groups I and III-IX, because they have different putative functions, different structures, and require completely different search terms, starting points and strategies.

The method of Invention X is distinct from the cells and proteins of Inventions I and III-IX because the cells and proteins of Inventions I and III-IX are not made by the method of Invention X. Furthermore, the products of Invention X are patentably distinct from the products of Groups I and III-IX, because they have different putative functions, different structures, and require completely different search terms, starting points and strategies.

The methods of Inventions II and X are independent and distinct, each from the other, because the methods are practiced with materially different process steps for materially different purposes and each method requires a non-coextensive search because of different starting materials, process steps, and goals.

Because these inventions are distinct for the reasons given above and have acquired a separate status in the art because of their recognized divergent subject matter, separate search requirements, and different classification, restriction for examination purposes as indicated is proper.

Applicant is advised that the reply to this requirement to be complete must include an election of the invention to be examined even though the requirement be traversed (37 C.F.R. 1.143)

Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 C.F.R. 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a petition under 37 C.F.R. 1.48(b) and by the fee required under 37 C.F.R. 1.17(i).

Advisory information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sandra Wegert whose telephone number is (703) 308-9346. The examiner can normally be reached Monday - Friday from 9:30 AM to 6:00 PM (Eastern Time).

If attempts to reach the examiner by telephone are unsuccessful, the Examiner's supervisor, Gary Kunz, can be reached at (703) 308-4623.

Official papers filed by fax should be directed to (703) 308-4242. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-0196.

SLW

Aug 30, 2002



ELIZABETH KEMMERER
PRIMARY EXAMINER